<b>Work Ord</b> September-23-1.				*107	7375	k							Page 1	
Revision ID:	D4003-047 Fuel Pump Inle	et Pipe		Accept	*N9	NN	<b>040</b>	100	<b>)*</b> s	etup	Start Stop	*N: *N:	S1* S2*	
	9/23/13 9/23/13	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Custo		D:						: : :	
Approvals:		n: <u>M</u>	Date: <u>13-09-24</u> Date:	Tooling: SPC (Y/N):			ite:		R	Run	Start Stop	*N *N	R1* R2*	
Sequence ID/ Work Center II		Operation Description		Set Up/ Run Hours	Тоо	l ID	Tool #	Plan Code	Accept Qty	Rejo Qty		Reject Number	Insp. Stamp	***
Draw Nbr	Rev	ision Nbr												
100  *1 \\ Small Fab  Small Fab	A	Memo 1- Cut tub 2- Bend a	e 12.00" long s per dwg	0.00								•	FF _13-12	- - - -
*1.10* QC Quality Control	-	QC5- Inspect part com Memo	upleteness to step on W/O	0.00 DAS 27 9-89	2/17				<u> </u>					
150 *150* HandFinish Hand Finishing		Chemical Conversion  Memo	Coat per QS1005 4.1	0.00							Ha	13.1	2.17	

									DQA:	Date:	
NCR: Yes	/ No			WORK	ORDER NON-CO	NFORN	MANCE / UP		QA Closed:	Date:	
Work Order:				0	ISPOSITION			AGAINST DEF	PARTMENT	PROCESS	
Part No.  NCR No.				Work	Rework Scrap Use-as-is Vork Order Update  Rework Skid-tube Machining Small Fab Thermoforming Large Fab Composite				Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other	
Root				Description of wo	rk order update	Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty	or Non-con	formance C	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data  Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved					EAL	JLT CATE	CORV				

**Landing Gear** General Ovalized Pressure/Forced Bend Gŕain Bending Hardware Centre Not Concentric to O/S BOM/Route Over/Under tolerance Temperature/Cure Broken/Damaged Inspection Incomplete Weld Cracks Part Incorrect Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs Contamination Maintenance Part Moved Positioned Wrong Heat Treat Countersink Mislabeled Misread Other Inspection Strip in Tube Power Loss/Surge Cut Too Short Drill Holes Ripples in Bend Offset Out of Calibration Torque Waves in Extrusion Drawing Turning Sequence Finish Out of Sequence Folio Wave/Twist in Tube Outside Dimensions

Work Order ID 107375 Page 2 September-23-13 11:49:33 AM D4003-047 Accept Setup Start Item ID: \*N900040100\* **Revision ID:** Item Name: Fuel Pump Inlet Pipe 9/23/13 Start Oty: 1.00 **Start Date: Cust Item ID: Req'd Qty:** 1.00 Required Date: 9/23/13 **Customer:** Reference: Run Process Plan: \_\_\_\_\_ Date: \_\_\_\_ Tooling: Date: **Approvals:** Stop Date:\_\_\_\_\_ SPC (Y/N): QC: Date: Sequence ID/ **Operation Tool ID** Tool # Plan Reject Reject Insp. Set Up/ Accept Qty Number Stamp **Work Center ID Description Run Hours** Code Qty 161 0.00 \*161\* Small Fab 0.00 Memo Small Fab 1- intall sleeve and nut 2-flare ends as per dwg OC5- Inspect part completeness to step on W/O 162 \*162\* QC Memo Quality Control Identify as per dwg & Stock Location: 0.00 170 1 /2 13/14 (1)

57243

Memo

0.00

\*170\*

Packaging

Packaging

DQA: Date: **WORK ORDER NON-CONFORMANCE / UPDATE** NCR: Yes / No QA Closed: Date: **AGAINST DEPARTMENT/PROCESS** DISPOSITION Work Order: Skid-tube Water Jet Engineering Rework Crosstube Small Fab Prod. Eng. Coor. Quality Part No. Machining Scrap Rec/Store/Packaging Use-as-is Thermoforming Finishing Other Composite Supplier Work Order Update Large Fab NCR No. Description of work order update Initial Action Sign & Root **QC** Inspector or Non-conformance Chief Eng Description Date Verification Date Step Qty Cause Doc/Data Equip/Tooling Operator Material Setup Other **Process** Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Grain Ovalized Pressure/Forced Bending Bend BOM/Route Centre Not Concentric to O/S Hardware Over/Under tolerance Temperature/Cure Broken/Damaged Cracks Inspection Incomplete Part Incorrect Weld Wrong Stock Pulled Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Cuffs Contamination Maintenance Part Moved

Mislabeled

Out of Calibration

Out of Sequence

**Outside Dimensions** 

Misread

Offset

Positioned Wrong Power Loss/Surge

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

**Torque Waves in Extrusion** 

Countersink

Cut Too Short

**Drill Holes** 

Drawing

Finish

Folio

Work Orden								Page 3				
Item ID: Revision ID: Item Name:	D4003-047 Fuel Pump In	ılet Pipe		Accept	*N900	<b>040</b>	100	)* s	etup	Start Stop	• •	S1* S2*
Start Date: Required Date: Reference:	9/23/13 9/23/13	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:						
Approvals:	Process Pla	an:	Date:	Tooling: SPC (Y/N):		nte:		R	Run	Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
*1 A \n* QC Quality Control		QC21- Final Inspection -  Memo	Work Order Release	0.00				fr.	013 21°	3/12) 3112	18 / 118	#

DQA: Date: **WORK ORDER NON-CONFORMANCE / UPDATE** QA Closed: Date: **AGAINST DEPARTMENT/PROCESS** DISPOSITION Water Jet Skid-tube Crosstube Engineering Rework Prod. Eng. Coor. Quality Machining Small Fab Scrap Thermoforming Finishing Rec/Store/Packaging Use-as-is Other Large Fab Composite Supplier Work Order Update Action Description of work order update Sign & Initial Chief Eng Description QC Inspector or Non-conformance Date Verification

## **FAULT CATEGORY Landing Gear** General Bending Bend Grain Ovalized Pressure/Forced BOM/Route Centre Not Concentric to O/S Hardware Over/Under tolerance Temperature/Cure Broken/Damaged Part Incorrect Weld Cracks Inspection Incomplete Wrong Stock Pulled Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Cuffs Contamination Maintenance Part Moved Heat Treat Countersink Mislabeled Positioned Wrong Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Other Drill Holes Offset Ripples in Bend Out of Calibration Torque Waves in Extrusion Drawing Out of Sequence Turning Sequence Finish Folio **Outside Dimensions** Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

NCR:

Root

Cause
Doc/Data
Equip/Tooling
Operator
Material
Setup
Other
Process
Supplier
Training
Unapproved

Yes / No

NCR No.

Work Order:

Date

Step

Qty

Part No.

September-23-13 11:49:32 AM

Work Order ID:

107375

Parent Item:

D4003-047

Parent Item Name:

Fuel Pump Inlet Pipe

**Start Date: 9/23/13** 

Required Date: 9/23/13

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP rev A 10.01.12 new issue prelim EC verified by:DD IPP Rev B 10.05.13 ecn 10-562 EC verified by:DD

		EC verified by:DL	<i>)</i>											
	Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
<b>*</b>	<b>AN818-6D</b> Nut		Purchased	No			161	Each	65.0000	2	2	FF	13-	-12-18
'					<b>Location</b>		Loc Qty	<u>La</u>	oc Code					
					ST347		10							
					125	445	10				2			
		•			ST348		55							
						1561	5				<del></del>			
				,	Ml	26180	50							
X	<b>M6061T6T0.375W.035</b> 6061-T6 RD Tube .375 x.0	035W	Purchased	No			100	f	213.1722	0.98	0.98	FF 1	3-17	2-17
					Location		Loc Oty	Lo	oc Code					·
					MAT014		213.1722							
					1 <u>12</u>	2652	105.1722				0.98			
					124	1491	108							
X	MS20819-6D Sleeve		Purchased	No			161	Each	28.0000	2	2	FF	13-	12-18
					Location		Loc Qty	Lo	oc Code			, ,		
					ST312		28							
						3900	3							
					125	5445	25				2			
					_	•								

											DQA.	Date	•
NCR: Y	⁄es	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPE	DATE	OA Classed	D-4-	
											QA Closed:	Date	:
Work Order:						DISPOSITION	i		AGAINST DE	PARTMENT	/PROCESS		
Part No						Scrap Machining Small Use-as-is Thermoforming Finis			Crosstube Small Fab Finishing Composite	Prod. Eng. Coor. Quantum Rec/Store/Packaging O			
						· •				<b>-</b>			
Root					•	ption of work order update	1	Initial	Act		Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Cr	nief Eng	Descr	iption	Date	Verification	QC Inspector
Doc/Data												:	
Equip/Tooling													
Operator	Ш								<b>:</b>				
Material													
Setup	П												
Other	П												
Process	П												
Supplier	П		į										
Training	П		ļ.				1						
Unapproved	П						1						
				<u>*</u>			AUI	LT CATE	GORY		<u> </u>	•	
Landi	ng G	ear				General					-		
		Bending				Bend		Grain			Ovalized		Pressure/Forced
Centre Not Concentric to O/S					)/S	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
Cracks						Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
	П	Crushed/	Crimped			Burrs		<b>-</b> 1 '	ions Incomplete/L	Inclear	Part Lost/M	issing	Wrong Stock Pulled
		Cuffs	•		<del>                                     </del>	Contamination		Mainte	· ·	<u> </u>	Part Moved	~ <u>L</u>	
	-	Heat Trea	at			Countersink		Mislabe			Positioned \	Vrong	
	-	Inspection Strip in Tube				Cut Too Short		Misread			Power Loss/		Other

Offset

Out of Calibration
Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

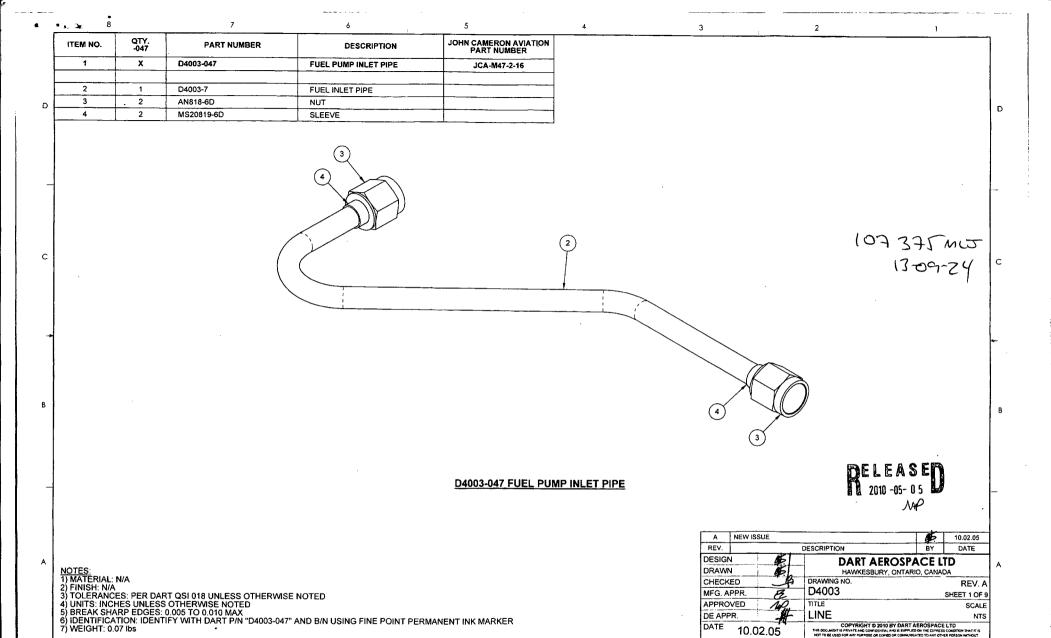
Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G



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DE APPR

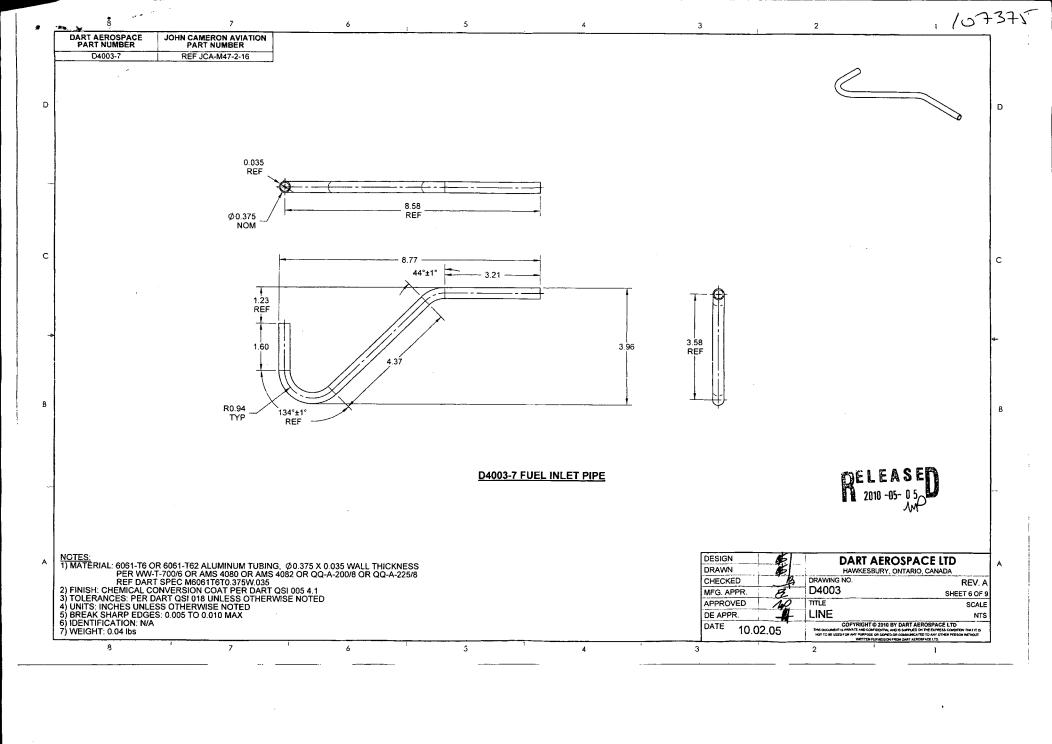
10.02.05

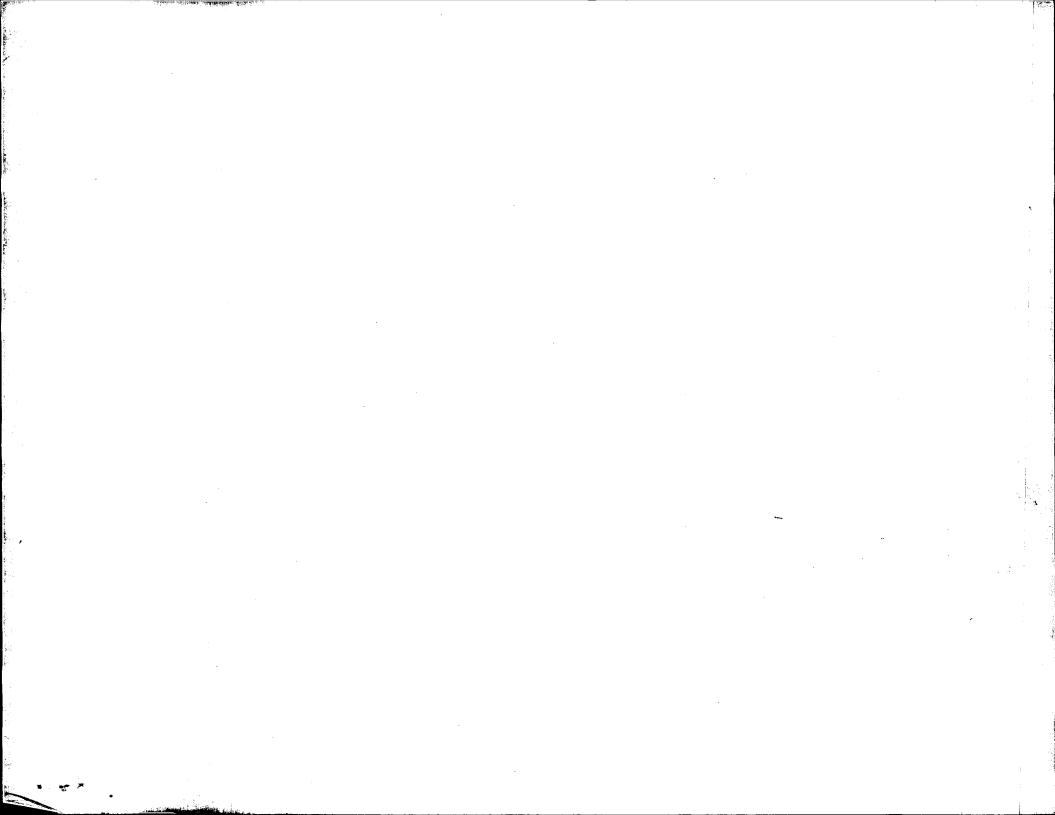
DATE

3

NTS

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## **DART AEROSPACE LTD**



Description: Fuel Pump	INLEE Pipe	Work Order: 107375
·		
Inspection Drawing: D4003	Rev: 🗡	Part Number: D 4003 - 047

## **INSPECTION SHEET**

Drawing Dimonsion	Toloranco				Method of Inspection	
		Actual Dimension		Reject	iviethod of inspection	Comments
8.77	0.030	8,74	7		lage meas s	Fab-07
3.21 3.96 3.150	12	۸ ، ۷ (			Calp 5-Fab-14 Calp 5-Fab-14 Calp 5-Fab-14 Calp 5-Fab-14 Calp 5-Fab-14 Calp 5-Fab-14	
3 96	U)	3-959	V		Calp 5-19	
3.150	U	3,20	V		calp & Fab. 14	•
4.37	l I	4.37	V		Calps-Fab-14	
1.60	ι,	1,60	V		calp 5-Fab-14	
1.23	0.030	1.23	V		Calp 5-Fab-14	
1.23	t 10	134°	V		9 Fab-04 5 Fab-04	
40"	+ 10	40°	V		5 Fabrou	
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Measured by:	30	QC inspector: DAS 27	Engineering Approval (if necessary):
Date 12-17	9-89 Date 5/12/17	Date B/12/17	Date